

Docket No.: 283020US0PCT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF:

GROUP: 1781

Yoji KAMEO, et al.

SERIAL NO: 10/560,172

EXAMINER: PADEN, CAROLYN A.

FILED: November 30, 2006

FOR: FAT COMPOSITION FOR BAKERY PRODUCT AND BAKERY PRODUCT

**DECLARATION UNDER 37 C.F.R. § 1.132**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

Sir:

Now comes Yoshihide Asabu who deposes and states that:

1. I am a graduate of Osaka Prefecture University and received my master degree in the year 1993.

2. I have been employed by Kao Corporation for 17 years as a researcher in the field of food and beverages.

3. The following experiments were carried out by me or under my direct supervision and control.

**Additional Products 1-8 and Product A**

Additional products 1 through 8, as well as a product of the invention A ("product A") were produced from the components listed in the enclosed table using the amounts designated in the table. The method for producing these additional products was as follows:

1) The components (A) and (B) were weighed in a stainless steel beaker having a volume of 2 liters.

2) The above-mentioned 1) was uniformly dissolved in a water bath at 85°C and left for 30 minutes. In this step, agitation was carried out using an anchor hook and a three-one motor (TYPE60G manufactured by HIDON Co., Ltd.).

3) The previously weighed component (C) was added while stirring to the above-mentioned 2), and after it was confirmed that the mixture became uniform, the mixture was left for 30 minutes.

4) In the above-mentioned 3), a large amount of ice was placed in the water bath to cool the mixture to 30°C, and the mixture was kept at a temperature of 30°C and simultaneously stirred, and then transferred to a predetermined container.

5) The above-mentioned 4) was left overnight (for about 12 hours) in a thermostatic bath at 15°C, and then measured for the degree of penetration and evaluated for bread manufacturing.

The “degree of penetration” results for the “fat and oil compositions” resulting from additional products 1-8 and product A can be seen in the last row of the top portion of the enclosed table.

The fat and oil compositions of additional products 1-8 and product A were then used for bread dough preparation and ultimately turned into bread according to the following procedures.

#### 1. Conditions for preparing dough in an intermediate stage

Using a vertical mixer (Kanto mixer, 10 coats) and a hook, the materials in the intermediate stage were introduced into the mixer and kneaded at low speed for 3 minutes and then for 2 minutes at moderate to high speed, and then formed into intermediate dough at a kneading temperature of 25°C. Then, the dough was fermented (intermediate fermentation). The conditions for this fermentation were as follows:

Intermediate fermentation temperature: 26.5°C

Intermediate fermentation relative humidity: 80%

Intermediate fermentation time: 2.5 hours

Intermediate fermentation finish temperature: 29.0°C

## 2. Conditions for preparing dough in a kneading stage

The intermediate dough was introduced into a vertical mixer (Kanto mixer, 10 coats), and the materials in the kneading stage (materials other than margarine, the fat and oil composition, and xanthane gum) were added and kneaded at low speed for 3 minutes and then at moderate to high speed for 3 minutes, and the remainder materials (margarine, the fat and oil composition, and xanthane gum) were added, kneaded at low speed for 3 minutes, at moderate to high speed for 3 minutes and at high speed for 7 minutes, to make kneaded dough. The kneading temperature of the kneaded dough was 29°C.

For recovery of the dough from damage upon kneading, a floor time of 20 minutes was taken at 27.0°C, and thereafter the dough was divided into portions each weighing 60 g. For eliminating dough damage upon division, a bench time of 20 minutes was taken at 27.0°C, and the dough was molded in a molder. The dough was placed on a heating plate and then fermented. The fermentation conditions are as follows:

Fermentation temperature: 38°C

Relative humidity: 80%

Fermentation time: 45 minutes

## 3. Conditions for producing bread

The fermented dough prepared under the conditions described above was baked for 13 minutes in an oven at 170°C. After baking, the sample was cooled to room temperature (20°C) for 45 minutes, then placed in a vinyl bag, sealed, stored at 20°C for 3 days and evaluated as a bread sample.

The “results of evaluation of bread manufacturing” for the breads resulting from the fat and oil compositions of additional products 1-8 and product A can be seen in the last three

rows of the bottom portion of the enclosed table. The breads were evaluated for softness, moist feel, and melting feel in the mouth by a panel of 10 examiners. The evaluation designations are as follows.

- ⊙: Judged to be excellent by at least 8 of 10 examiners.
- : Judged to be excellent by 5 to 7 of 10 examiners.
- Δ: Judged to be excellent by 3 to 4 of 10 examiners.
- ×: Judged to be not excellent by at least 8 of 10 examiners.

Component		Additional product 1	Additional product 7	Additional product 2	Product of the invention A	Additional product 3	Additional product 8	Additional product 4	Additional product 5	Additional product 6
(A)	Purified rape oil (melting point 10°C or less) Commercial vegetable shortening (melting point 37°C)	control 24.5	control 24.5	the invention 24.5	the invention 24.5	the invention 24.5	control 24.5	control 24.5	control 24.5	control 24.5
(B)	Glycerine fatty monoester the invention (B-1) 95% manufactured by Kao Corporation [Excel T-]	20	15	13.0	10	6.8	5.5	0	0	0
(B)	the invention (B-2) Propylene glycol monobehenic acid ester (PGMB, manufactured by Kao Corporation)	0	5	7	10	13.2	14.5	20	10	13
(B)	the invention Polyglycerine condensed ricinoleic ester (Sun Soft 818SK, manufactured by Taiyo Kagaku Co. Ltd.)	2	2	2	2	2	2	2	2	2
(B)	control to (B-1) Polyglycerine fatty acid monoester (MS-5S hexaglycerine monostearate, manufactured by Sakamoto Yakuhin Kogyo Co. Ltd.)	0	0	0	0	0	0	0	10	7
(B)	the invention Soybean lecithin (Nishin Lecithin Da, manufactured by Nissin Oil Co. Group, Ltd.)	1	1	1	1	1	1	1	1	1
(C)	the invention Xanthane Gum (Bustan D-3000, manufactured by San-Ei Gan F.F.I. Inc.)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
(B-1)/ (B-2)	the invention ratio of glycerine fatty acid monoester / propylene glycol monobehenic acid ester	-	1/0.33	1/0.54	1/1	1/1.94	1/2.04	-	-	-
(B-1)/ (B-2)	control ratio of polyglycerine fatty monoester / Propylene glycol monobehenic acid ester	-	-	-	-	-	-	-	1/1	1/1.86
(A) / (B)	reference	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
<Results of evaluation of fat and oil composition>										
	Degree of penetration	20	21	25	31	40	25	25	45	42

	Wheat flour (bread flour)	80	80	80	80	80	80	80	80	80
	Wheat flour (weak flour)	20	20	20	20	20	20	20	20	20
	Yeast	7	7	7	7	7	7	7	7	7
	Yeast food	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Sugar	16	16	16	16	16	16	16	16	16
	Skin milk	4	4	4	4	4	4	4	4	4
	Common salt	1	1	1	1	1	1	1	1	1
	Whole egg	20	20	20	20	20	20	20	20	20
	Shortening	15	15	15	15	15	15	15	15	15
	Fat and oil composition	1	1	1	1	1	1	1	1	1
	Compound amount	5	5	5	5	5	5	5	5	5
	Water	40	40	40	40	40	40	40	40	40
	Ref-in fat and oil	50	50	50	50	50	50	50	50	50
<Results of evaluation of bread manufacturing>										
	Softness	○	○	○	○	○	○	○	△	△
	Moist feel	△	○	○	○	○	○	○	△	△
	Melting feel in the mouth	×	△	○	○	○	○	×	△	△

4. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

5. Further deponent saith not.

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ASABU YOSHIHIDE

Signature

December 22, 2010

Date